Agency for Healthcare Research and Quality
Advancing Excellence in Health Care - www.ahrq.gov

AHRQuality Indicators e-Newsletter

September 2005 **Volume 1, Number 2**

In this issue:

AHRQ QI User Meeting

The Agency for Healthcare Research and Quality (AHRQ) held the first AHRQ Quality Indicators User Meeting at the AHRQ's John M. Eisenberg Conference Center in Rockville, Maryland, on September 26 – 27, 2005. The meeting was well attended. Meeting materials will be posted on the AHRQ QI Web site in the near future.

Return to top

AHRQ Developing New Pediatric QI Module

AHRQ is developing a new Pediatric Quality Indicator module that will adapt indicators from the current set of modules—the Prevention Quality Indicators (PQIs), Inpatient Quality Indicators (IQIs) and Patient Safety Indicators (PSIs). Modifications to the specifications and the risk adjustment will take into account the special characteristics of the pediatric population. The new module will be released early in 2006. The current set of modules will be refined in the next release to apply only to adults and obstetric patients.

Children are different than adults because of relatively low mortality and morbidity rates, specialized pediatric services (e.g., neonatal intensive care units and children's hospitals), rapid physical and mental development over a wide age range, and dependence on adults for access to care. In addition, some ICD-9-CM and DRG codes are specific to children of particular ages, or may have a different

clinical interpretation when applied to the pediatric population.

To develop the Pediatric Quality Indicators module, AHRQ's QI development team reviewed the current AHRQ Quality Indicators (AHRQ QIs) for applicability to the pediatric population. Not all current indicators were considered for inclusion. For example, indicators addressing chronic or acute diseases that occur primarily in an adult population (e.g. congestive heart failure) or are clinically different (and rare) in a pediatric population (e.g., pneumonia mortality) were eliminated. A few other indicators were eliminated due to concerns about validity and reliability in a pediatric population, based on literature review, empirical analysis, user experience, and clinical expertise.

Prior to clinical panel review, relevant indicators from the current AHRQ QIs were reviewed by two pediatricians with backgrounds in health services research. Potential modifications to the indicators were discussed and, when appropriate, implemented. Empirical analyses of specific codes and alternative indicator specifications further informed the draft indicator definitions.

Four clinician panels were convened to evaluate the face validity of the AHRQ QIs as applied specifically to a pediatric population. During the evaluation of specific indicators, panelists emphasized several themes that differentiated the pediatric indicators from their adult counterparts:

- **Face validity** – Because of the sparse literature on pediatric quality indicators, the SQI team relied heavily on expert clinical consensus in the indicator development. Panelists frequently suggested modifications that required data elements not available on the common denominator discharge data used in the AHRQ QIs. The panel's rigor was reflected in their assessments of the indicators.
- **Complications in high-risk groups** – The panelists noted that the indicators were of greater value for quality improvement when including high-risk pediatric populations, and indicated a preference for analysis using stratification by risk category rather then exclusion. In the adult population, high-risk populations are generally excluded to improve the heterogeneity of the population.
- **Precision and bias** – Including high-risk populations introduces a potential source of bias when comparing rates among hospitals or demographic groups. Risk adjustment partially

addresses this problem; however, the high-risk cases in pediatric populations tend to be concentrated in children's specialty hospitals. Another approach is to create separate indicators by risk category; however the high risk-cases are rare in the pediatric population and the resulting indicators are potentially imprecise.

- **Use and interpretation** – Panelists were supportive of the use of the indicators for interval quality improvement, including case finding and trending of provider performance over time. The panelists were more reserved in their recommendations for use in comparative reporting, highlighting the issues noted above concerning face validity, precision, and bias.

Future development of the Pediatric Quality Indicator module will incorporate new indicators that have been identified through literature review and consultation with national organizations involved in quality of care for children, including federal agencies, advocacy groups, and professional organizations.

Return to top

USER STORY: Colorado and Oregon Publish IQI Reports

The Colorado Health and Hospital Association (CHA) Performance and Quality Group hosts a Web site to provide consumers with comparable data on the quality of care in hospitals throughout Colorado (http://www.hospitalquality.org/).

In April the CHA published data for three of the AHRQ IQIs. They include risk-adjusted mortality rates for Acute Myocardial Infarction (AMI), Congestive Heart Failure (CHF), and Pneumonia. These indicators were chosen to coincide with publication of *Hospital Compare* by the US Department of Health and Human Services. *Hospital Compare* shows a set of complimentary quality indicators based on treatments for the same three conditions (http://www.hospitalcompare.hhs.gov/).

Colorado hospitals have voluntarily released these three quality indicators to the public. The CHA Performance and Quality Group is a collaborative effort by 12 major health care, business, and governmental organizations. This Group oversaw the development and publication of the data, including selecting the indicators to be

released. Colorado is the first state where a joint effort with the hospitals has led to a voluntary release of the information. This will be an ongoing effort, with new data added as it becomes available.

This summer, the State of Oregon followed suit, publishing Hospital-Specific Reports for 2004 on both volume and mortality rates for the following procedures:

- Abdominal Aortic Aneurysm (AAA) Repair
- Balloon Angioplasty (Percutaneous Transluminal Coronary Angioplasty/PTCA)
- Heart Bypass Surgery (Coronary Artery Bypass Graft/CABG)

Volume rates were also reported for Esophageal Resection, Pancreatic Resection, Pediatric Heart Surgery, and Carotid Artery Plaque Removal (Carotid Endarterectomy/CEA). In addition, mortality rates were reported for the following conditions:

- Heart Attack (Acute Myocardial Infarction/AMI)
- Heart Failure (Congestive Heart Failure/CHF)
- Hip Fracture
- Pneumonia
- Stroke

The reports are available at http://egov.oregon.gov/DAS/OHPPR/HQ/index.shtml.

Return to top

AHRQ QI TIPS: ICD-9-CM Coding Issues

The AHRQ Quality Indicators (AHRQ QIs) are based on commonly available administrative data. Administrative data are primarily used for billing but also for other business and financial purposes. There is a basic tension between using the same data for reimbursement and for measuring quality.

When the use is reimbursement, there is a tendency to perform coding quickly and to maximize the coding of complications and comorbidities.

When the use is to assess quality, however, it is important for coders to have a complete record and to restrict diagnosis coding to conditions that affect patient care “in terms of requiring clinical evaluation; or therapeutic treatment; or diagnostic procedures; or extended length of hospital stay; or increased nursing care and/or monitoring.” Diagnoses that “have no bearing on the current hospital stay” or represent “a routinely expected condition or occurrence” should not be coded.

Adherence to best practices in coding and compliance with coding guidelines will ensure both fair reimbursement and accurate measurement of quality indicators.

There are many reasons why QI rates might vary across hospitals. An unfavorable rate might reflect performance problems due to poor systems of care or processes of care. But the rate might be due to problems with data availability, such as limitations on the number of diagnoses, or lack of information on admission type and/or conditions present on admission. Or the rate might reflect problems with documentation.

Documentation is the responsibility of both physicians and professional coders. Coders are not clinicians. They cannot diagnose. They analyze documentation and apply guidelines to the best of their ability. Coders do need access to clinicians so that they can readily receive answers to their questions. Providers need to create an atmosphere that fosters that kind of collaboration. Concurrent “real-time” coding improves access to physicians. Having coders work directly with nursing and medical personnel fosters that collaborative effort and improves data quality. There should also be a process through which coders can obtain necessary back-up and refer records that require further review.

In managing coders, productivity expectations have to be balanced with quality control of the data. It is important to receive reimbursements quickly, but sometimes coders are subjected to intense productivity requirements that impact data quality.

Coding tools can help structure data input to facilitate capture of correct codes. Standard forms such as the Hollister Initial Newborn Profile allow physicians and nurses to document the information that coders need. Coders should have Coding Clinic and electronic coding software on their desktops. The American Health Information Management Association (AHIMA) has a variety of resources and practice briefs

available via their Web site (http://www.ahima.org/infocenter/). Other resources include the American Hospital Association (http://www.ahacentraloffice.com/ahacentraloffice/index.html) and the National Center for Health Statistics (http://www.cdc.gov/nchs/icd9.htm).

Return to top

Contact us:

(888) 512-6090

The support e-mail address for the Quality Indicators is support@qualityindicators.ahrq.gov.

Links:

Quality Indicators Web Site

AHRQ Web Site

HCUP Web Site

To subscribe to the Quality Indicators Listserv, go to http://www.qualityindicators.ahrq.gov/signup.htm and follow the directions. The purpose of the Quality Indicators (QIs) LISTSERV® is to inform interested parties of modifications and enhancements to the QIs or other information related to the AHRQ QIs.